AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A data carrier having a semiconductor chip (5) with at least one memory containing an operating program which is able to execute at least one operation *(h)*, the execution of the operation *(h)* requiring input data *(x)* and the execution of the operation *(h)* generating output data *(y)*, characterized in that

the operation *(h)* is disguised before its execution to obtain a disguised operation (h_{RI}) that is a different operation than the operation *(h)*,

the disguised operation (h_{RI}) is executed with disguised input data ~~$(x \otimes R_I)$~~, and

the disguising of the operation *(h)* and the input data *(x)* is coordinated such that the execution of the disguised operation (h_{RI}) with disguised input data ~~$(x \otimes R_I)$~~ yields output data *(y)* identical with the output data *(y)* determined upon execution of the operation *(h)* with input data *(x)*,

whereby disguising operation *(h)* prevents analysis of said operation *(h)* and exposure of secret information about said semiconductor chip should a potential attacker intercept signal patterns generated during execution of said disguised operation (h_{RI}).

2. (Original) A data carrier according to claim 1, characterized in that at least one random number (R_I) enters into the determination of the disguised operation (h_{RI}) and the disguised input data $(x \otimes R_I)$.

3. (Currently Amended) A data carrier according to claim 1, characterized in that ~~the~~ disguised operation (h_{RI}) ~~and the disguised input data $(x \otimes R_I)$ are respectively~~ is generated from ~~the input data (x) and~~ the operation (h) with the aid of XOR operations and the disguised input data is generated from the input data (x) with the aid of XOR operations.

4. (Previously Presented) A data carrier according to claim 1, characterized in that the disguised operation (h_{RI}) is permanently stored in the data carrier in advance.

5. (Original) A data carrier according to claim 4, characterized in that at least two disguised operations (h_{RI}, h_{RI}) are permanently stored in the data carrier in advance and one of the stored disguised operations (h_{RI}, h_{RI}) is selected randomly when a disguised operation is to be executed.

6. (Previously Presented) A data carrier according to claim 1, characterized in that the disguised operation (h_{RI}) is recalculated before its execution and the at least one random number (R_I) is redetermined for said calculation.

7. (Previously Presented) A data carrier according to claim 1, characterized in that the operation (h) is realized by a table stored in the data carrier which establishes an association between the input data (x) and the output data (y).

8 (Original) A data carrier according to claim 7, characterized in that the disguising of the input data (x) contained in the table is effected by combination with the at least one random number (R_I).

9. (Currently Amended) A data carrier having a semiconductor chip (5) with at least one memory containing an operating program which is able to execute at least one operation (h), the execution of the operation (h) requiring input data (x) and the execution of the operation (h) generating output data (y), characterized in that

the operation *(h)* is disguised before its execution,

the disguised operation (h_{R1}) is executed with disguised input data ~~$(x \otimes R_1)$~~ to obtain a disguised operation (h_{R1}) that is a different operation than the operation *(h)*,

the disguising of the operation *(h)* and the input data *(x)* is coordinated such that the execution of the disguised operation (h_{R1R2}) with disguised input data ~~$(x \otimes R_1)$~~ yields output data ~~$(y \otimes R_2)$~~ which are disguised relative to the output data *(y)* determined upon execution of the operation *(h)* with input data (x), and

the output data *(y)* can be determined from the disguised output data ~~$(y \otimes R_2)$~~ with the aid of data (R_2) used for disguising the operation *(h)*,

whereby disguising operation *(h)* prevents analysis of said operation *(h)* and exposure of secret information about said semiconductor chip should a potential attacker intercept signal patterns generated during execution of said disguised operation (h_{R1}).

10. (Original) A data carrier according to claim 9, characterized in that at least one random number (R_1) enters into the determination of the disguised input data $(x \otimes R_1)$ and at least two random numbers (R_1, R_2) enter into the determination of the disguised operations (h_{R1R2}).

11. (Currently Amended) A data carrier according to claim 9, characterized in that the ~~the~~ disguised operation (h_{R1R2}) ~~and the disguised input data $(x \otimes R_1)$ are respectively~~ is generated from the input data *(x)* ~~and the operation *(h)*~~ with the aid of XOR operations and the disguised input data is generated from the input data (x) with the aid of XOR operations.

12. (Currently Amended) A data carrier according to claim 9, characterized in that the disguised operation (h_{R1R2}) is permanently stored in the data carrier in advance.

13. (Original) A data carrier according to claim 12, characterized in that at least two disguised operations $(h_{R1R2}, h_{R1'R2'})$ are permanently stored in the data carrier in advance and one of the stored disguised operations $(h_{R1R2}, h_{R1'R2'})$ is selected randomly when a disguised operation is to be executed.

14. (Original) A data carrier according to claim 13, characterized in that the random numbers (R_1, R_2) for determining the first disguised operation (h_{R1R2}) are inverse to the random numbers (R_1', R_2') for determining the second disguised operation $(h_{R1'R2'})$ with respect to the combination used for determining the disguised operations $(h_{R1R2}, h_{R1'R2'})$.

15. (Previously Presented) A data carrier according to claim 9, characterized in that the disguised operation (h_{R1R2}) is recalculated before its execution and the random numbers (R_1, R_2) are redetermined for said calculation.

16. (Previously Presented). A data carrier according to claim 9, characterized in that the operation (h) is realized by a table stored in the data carrier which establishes an association between the input data (x) and the output data (y).

17. (Original) A data carrier according to claim 16, characterized in that the disguising of the input data (x) contained in the table is effected by combination with the at least one random number (R_1) and the disguising of the output data (y) contained in the table is effected by combination with the at least one further random number (R_2).

18. (Previously Presented) A data carrier according to claim 1, characterized in that the operation (h) is a nonlinear operation with respect to the combination used for disguising the operation (h).